REMARKS

Applicants thank the Examiner for the thorough consideration given the present application.

Claims 16, 28 and 78-90 are pending in this application. Claims 16 and 28 have been withdrawn from further consideration. Claims 79 and 89 have been amended for clarity, and claim 91 has been cancelled. No new matter has been added.

No new issues have been raised which would require additional search and/or consideration on the part of the Examiner. For instance, Applicants simply clarify the subject matters in claims 79 and 89, which have already been searched and considered. Thus, no new issues have been raised. In the event that the present submission does not place the application into condition for allowance, entry thereof is respectfully requested as placing the application into better form for appeal.

In view of the following remarks, reconsideration of this application is respectfully requested.

Information Disclosure Citation

Applicants thank the Examiner for considering the reference supplied with the Information Disclosure Statement filed on December 31, 2009, and for providing Applicants with an initialed copy of the PTO-SB08 form filed therewith.

Issues under 35 U.S.C. § 103(a)

The Examiner has rejected claims 78-80, 83 and 88-91 under 35 U.S.C. § 103(a) as being obvious over Muller (US application publication No. 2003/0059470; hereinafter "Muller") in further view of Woo et al. (WO 02/13815; hereinafter "Woo").

Also, the Examiner has rejected claims 16 and 81-87 under 35 U.S.C. § 103(a) as being obvious over Muller.

These rejections are respectfully traversed.

The Present Invention and its Advantages

Claim 78 of the present invention is directed to a solubilized paclitaxel composition consisting essentially of: 1) 40 to 89.9% by weight of monoolein, 2) 10 to 59.99% by weight of an oil chosen from triglyceride, iodized oil, vegetable oil and animal oil, and 3) 0.01 to 10% by weight of paclitaxel. Also, claim 79 of the present invention is directed to a solubilized paclitaxel composition consisting essentially of: 1) 40 to 89.9% by weight of monoolein, 2) 10 to 59.99% by weight of an oil chosen from triglyceride, iodized oil, vegetable oil and animal oil, and 3) 0.01 to 10% by weight of paclitaxel, and 4) 0.01 to 5 % by weight of additive, wherein the additive is selected from the group consisting of an anticancer drug, a p-glycoprotein inhibitor and a hepatic metabolism blocker. Further, claim 80 of the present invention is directed to a solubilized paclitaxel composition consisting essentially of: 1) 40 to 89.9% by weight of monoolein, 2) 10 to 59.99% by weight of an oil chosen from triglyceride, iodized oil, vegetable oil and animal oil, 3) 0.01 to 10% by weight of paclitaxel, and 4) 0.01 to 90% by weight of at least one emulsifier.

In the oral paclitaxel formulation field, precipitation of paclitaxel is one obstacle because this precipitate cannot be properly absorbed into the body. Also, another obstacle of paclitaxel formulation is the lower bioavailability of paclitaxel due to an efflux system of p-glycoprotein in the gastrointestinal tract.

However, the composition of the present invention, which is only in the oily phase form, solves these problems of solubility of paclitaxel by the using a combination of monoolein and an oily component along with paclitaxel (see at least pages 4 and 5 and the Examples of the present specification).

Distinctions Over the Cited Art

The composition of the present invention, which is only in the oily phase form, solves the problem of solubility of Paclitaxel. As recited in claims 78, 79 and 80, the claimed invention does not require aqueous component(s).

In contrast, Muller discloses a dispersion which is in a form of an O/W or W/O emulsion, comprising both oily phase and aqueous phase (see abstract and claim 1 of Muller). More clearly, Muller discloses that an admixture of the active ingredient as an aqueous suspension is especially suitable if the active ingredient concentration is relatively low (see paragraph [0039] of Muller).

Applicants strongly request the Examiner to consider that the term "emulsion" means a stable mixture of two or more immiscible liquids, so an emulsion composition **MUST** have both an oily phase and an aqueous phase at the same time. In this respect, Muller discloses that the emulsions obtained have a stability (see paragraph [0036] of Muller), implying that since the oily phase and the aqueous phase of the emulsion substantially could not be separated from each other, one of skill in the art could not separate the oily phase only from the emulsion of Muller.

Further, in this regard, the Examiner has indicated at the first paragraph at page 5 of the current Office Action that claim 33 of Muller discloses an oily phase. However, it is not reasonable to indicate only the oily phase. In fact, dependent claim 33 of Muller further defines the oily phase recited in claim 1. In other words, Muller requires a dispersion comprising the oily phase; the aqueous phase; and at least one active ingredient that is only slightly or with difficulty soluble in the oily phase. Therefore, the dispersion of Muller requiring the aqueous phase in addition to the oily phase is distinguishable from the present invention requiring only oily phase.

Further, according to paragraphs [0020], [0047] and [0048] of Muller, the solubility of Amphotericin B in soya oil and in Miglyol (Midium–chain triglycerides) 812 is less than 0.0001 mg/ml, but the solubility of Amphotericin B in the emulsion is 0.2 mg/ml. In this context, Muller clearly teaches away from the oily composition having only oily components recited in the present invention. Rather, Muller teaches that the problem of solubility of Paclitaxel could **NOT** be solved with the oily composition. That is, Muller solves the problem of very low

solubility of an active ingredient in the oily phase by an emulsion. However, the present invention solves the same problem with a composition without changing the oily phase itself.

For the reasons set forth above, the present invention is patentably distinct from Muller.

The deficiencies of Muller cannot be cured by the secondary reference of Woo. This is because Woo also discloses a composition prepared in the form of an emulsion (please see page 7, lines 2-23 of Woo). Further, Woo teaches that the problem of the solubility of Paclitaxel is solved by using the compound of formula (I). Further, even though the Examiner has indicated the use of ethyl linolate in Example 8 of Woo (please see page 6, lines 7-14), it is noted that the ethyl linolate is not a triglyceride.

In summary, Muller and Woo both solve the problem by disclosing a composition in the form of a W/O or O/W emulsion. Woo has further solves the problem by the compound of formula (1). Therefore, neither Muller nor Woo teaches nor suggests that the problem of solubility of Paclitaxel could be solved by the composition of the present invention which is in the oily phase only, accordingly, clearly establishing the non-obviousness of the present invention over Muller in view of Woo.

As the MPEP directs, all the claim limitations must be taught or suggested by the prior art to establish a *prima facie* case of obviousness. *See* MPEP § 2143.03. In view of the fact that the cited references individually or in combination fail to teach or fairly suggest the claimed features, a *prima facie* case of obviousness cannot be said to exist.

In light of the above remarks, since independent claims 78-80 of the present application are believed to overcome the 35 U.S.C. § 103(a) rejection, the dependent claims therefrom are also believed to be patentable. Therefore, the Examiner is respectfully requested to withdraw the obviouness rejections and allow the pending application.

Request for Rejoinder

Applicants hereby request that the withdrawn claims 16 and 28 be rejoined upon allowance of claim 78.

Specifically, such withdrawn claims 16 and 28 include all the limitation of claim 78. Therefore, rejoinder of these claims 16 and 28 is requested upon allowance.

Conclusion

In view of the above remarks, Applicants believe the application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Craig A. McRobbie, Reg. No. 42,874 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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